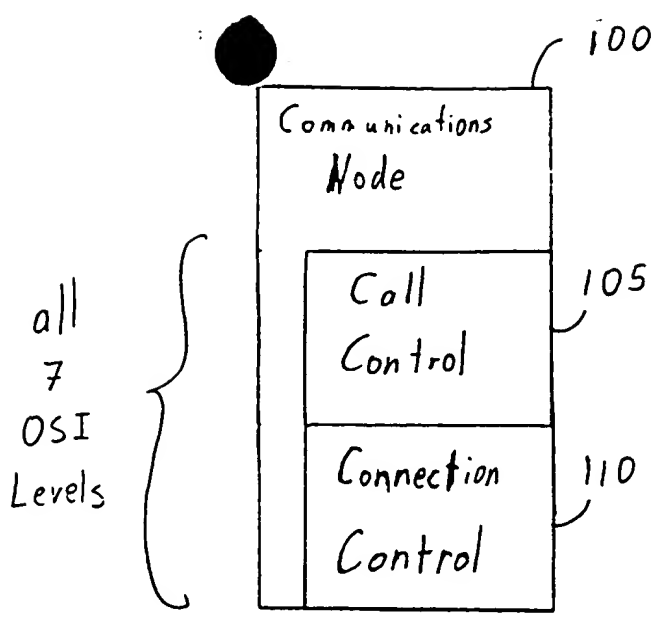
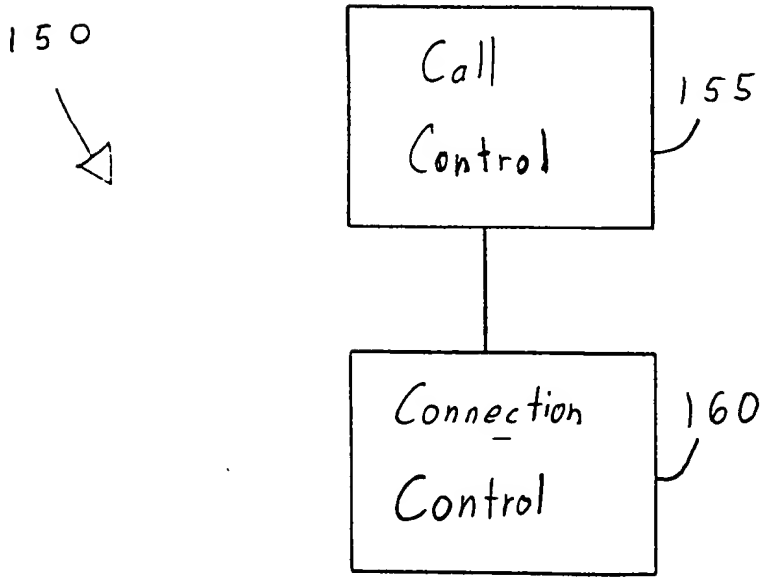
09/969,704



Prior Art

FIG. 1A



Prior Art

FIG. 1B

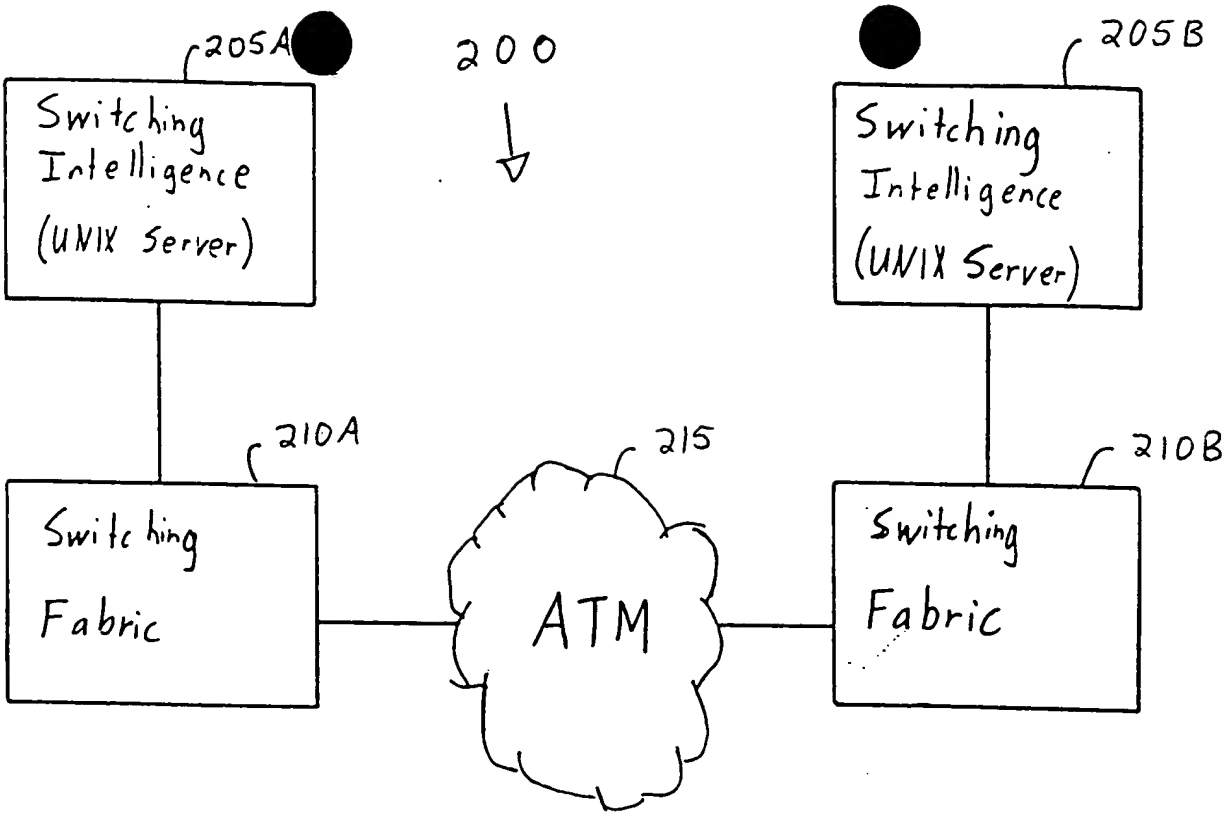


FIG. 2 Prior Art

09/576,170 - 05/30/00

EP 0 796 960 A2

Fig. 3

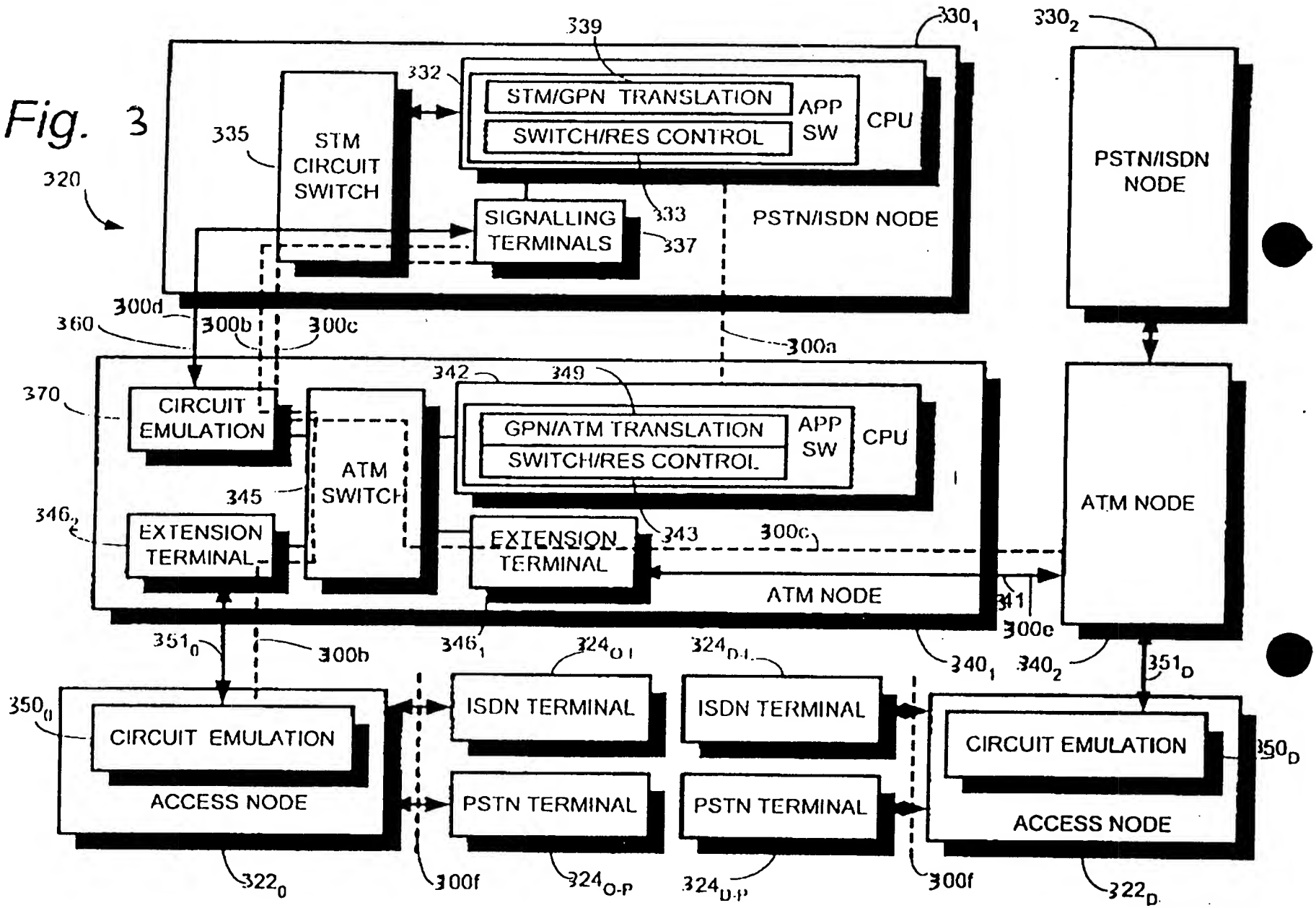


Fig. 3A

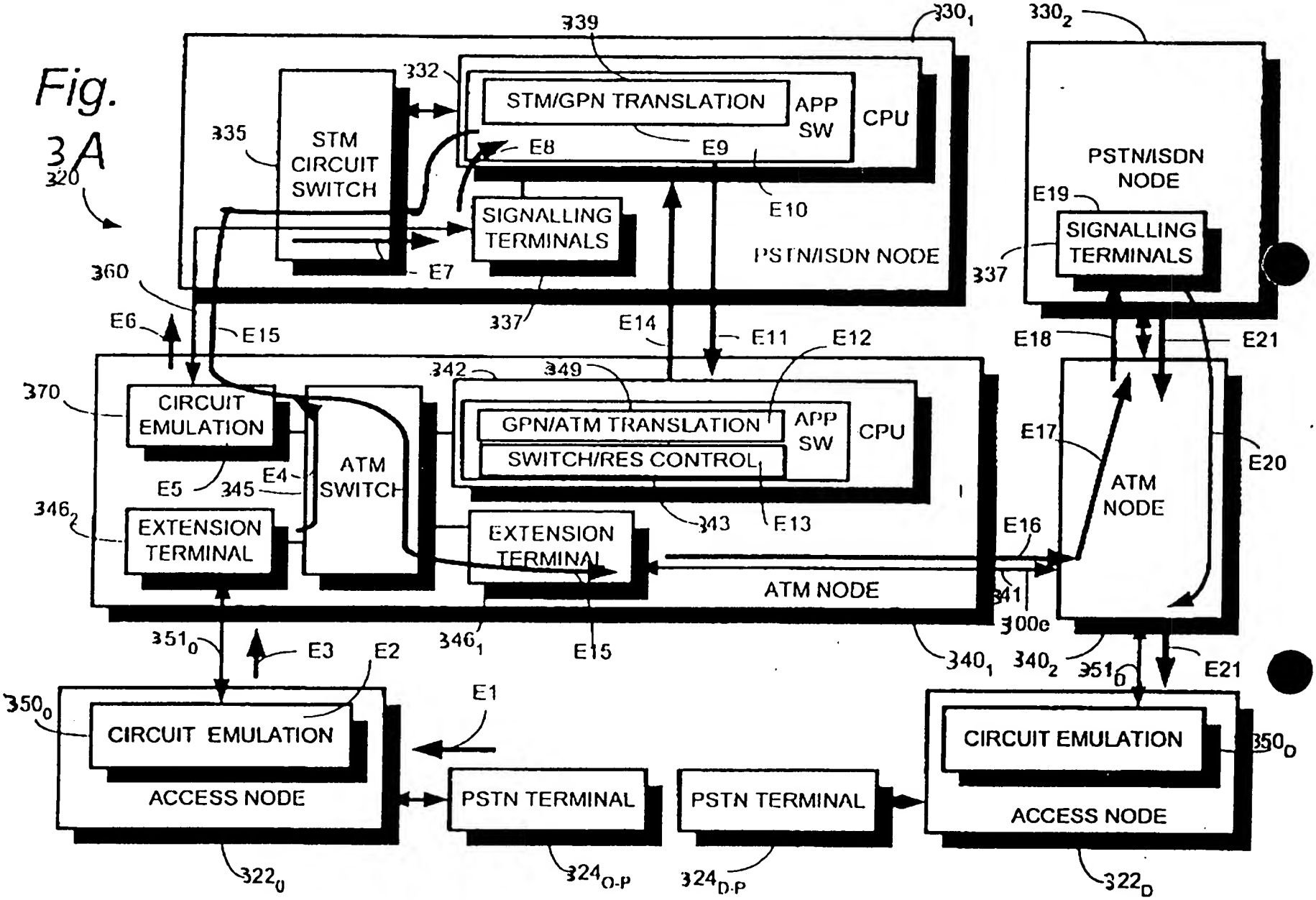

320
330$_1$
330$_2$
339
332
335
STM CIRCUIT SWITCH
STM/GPN TRANSLATION
APP SW
CPU
E8
E9
E10
SIGNALLING TERMINALS
E7
PSTN/ISDN NODE
PSTN/ISDN NODE
E19
SIGNALLING TERMINALS
337
360
E6
E15
337
E14
E11
E12
E18
E21
342
349
370
CIRCUIT EMULATION
GPN/ATM TRANSLATION
SWITCH/RES CONTROL
APP SW
CPU
E17
E20
E5
345
E4
ATM SWITCH
ATM NODE
346$_2$
EXTENSION TERMINAL
343
E13
E16
EXTENSION TERMINAL
ATM NODE
341
300e
351$_0$
E3
E2
346$_1$
E15
340$_1$
340$_2$
351$_0$
E21
350$_0$
E1
CIRCUIT EMULATION
CIRCUIT EMULATION
350$_D$
ACCESS NODE
PSTN TERMINAL
PSTN TERMINAL
ACCESS NODE
322$_0$
324$_{O-P}$
324$_{D-P}$
322$_D$

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Fig. 3B

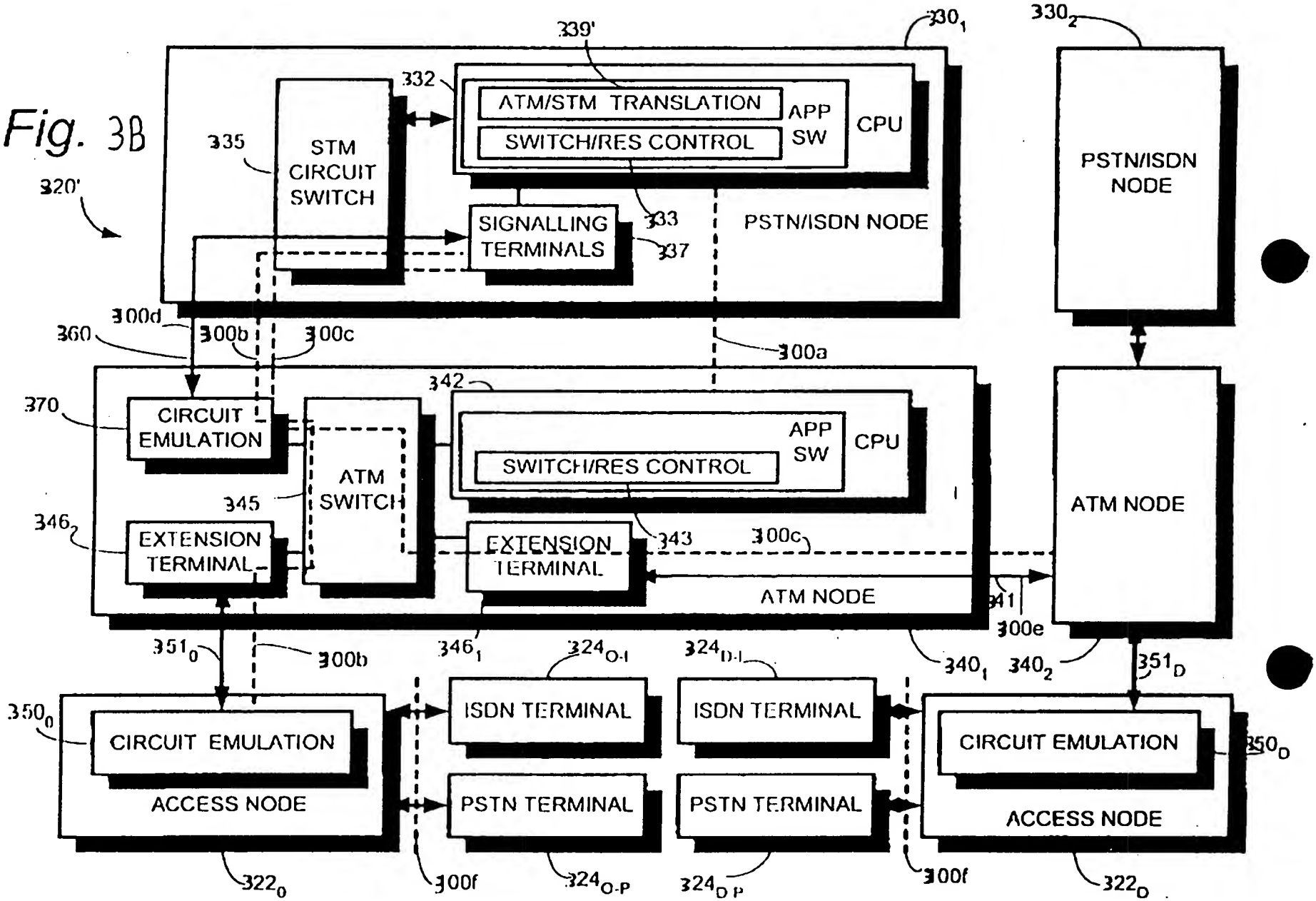
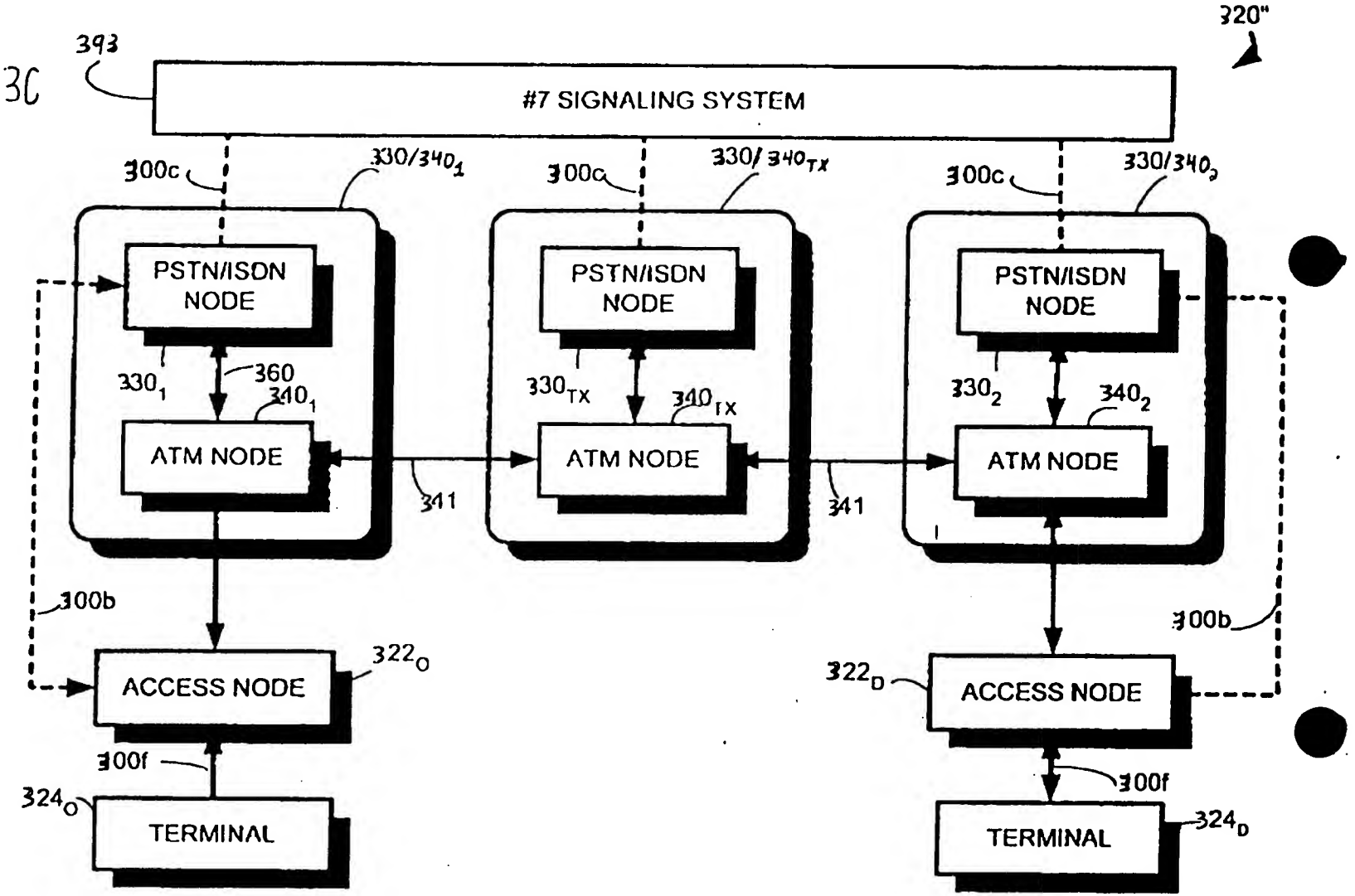


Fig. 3C


320"
393
#7 SIGNALING SYSTEM
300c
330/340$_1$
330/340$_{TX}$
330/340$_2$
PSTN/ISDN NODE
PSTN/ISDN NODE
PSTN/ISDN NODE
330$_1$
360
340$_1$
330$_{TX}$
340$_{TX}$
330$_2$
340$_2$
ATM NODE
ATM NODE
ATM NODE
341
341
300b
300b
322$_O$
322$_D$
ACCESS NODE
ACCESS NODE
300f
300f
324$_O$
324$_D$
TERMINAL
TERMINAL

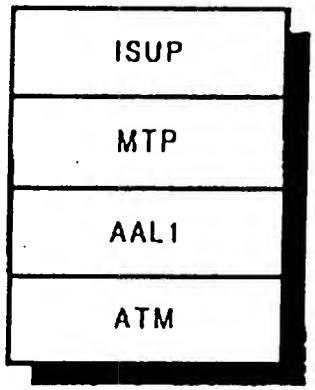


Fig. 3D

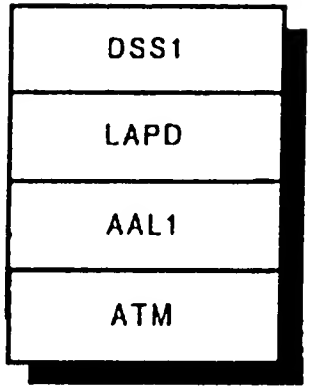


Fig. 3E

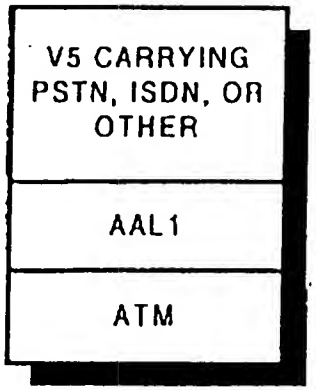


Fig. 3F

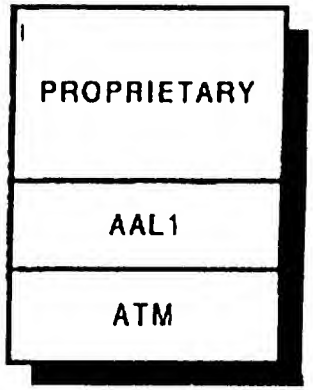


Fig. 3G

Fig. 3H

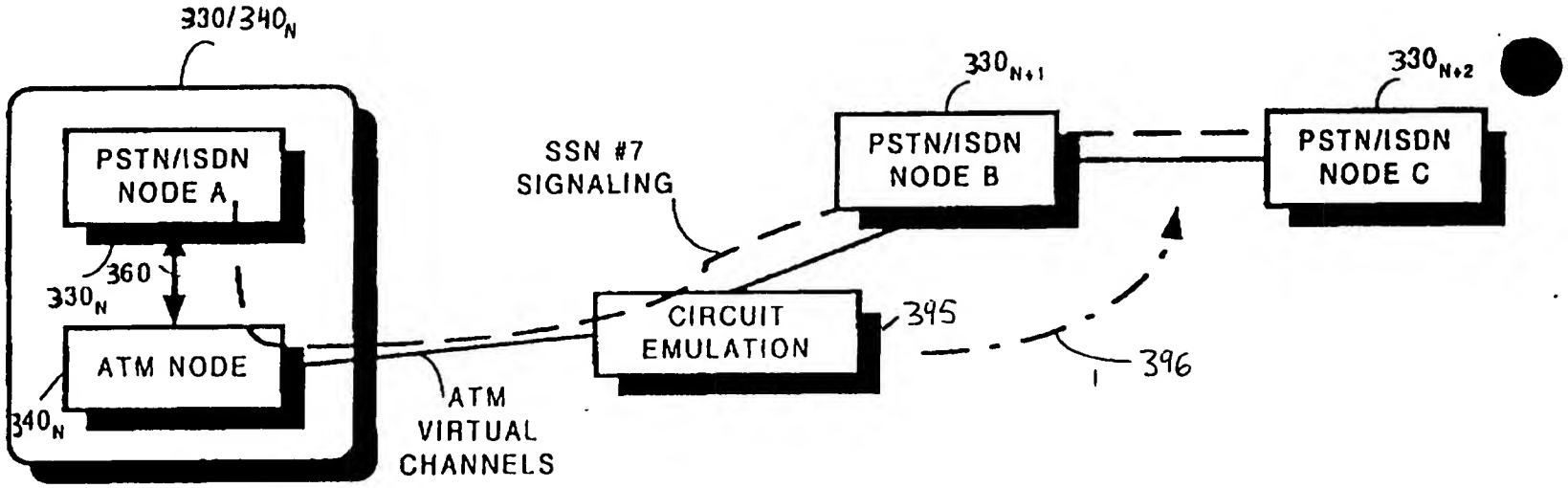
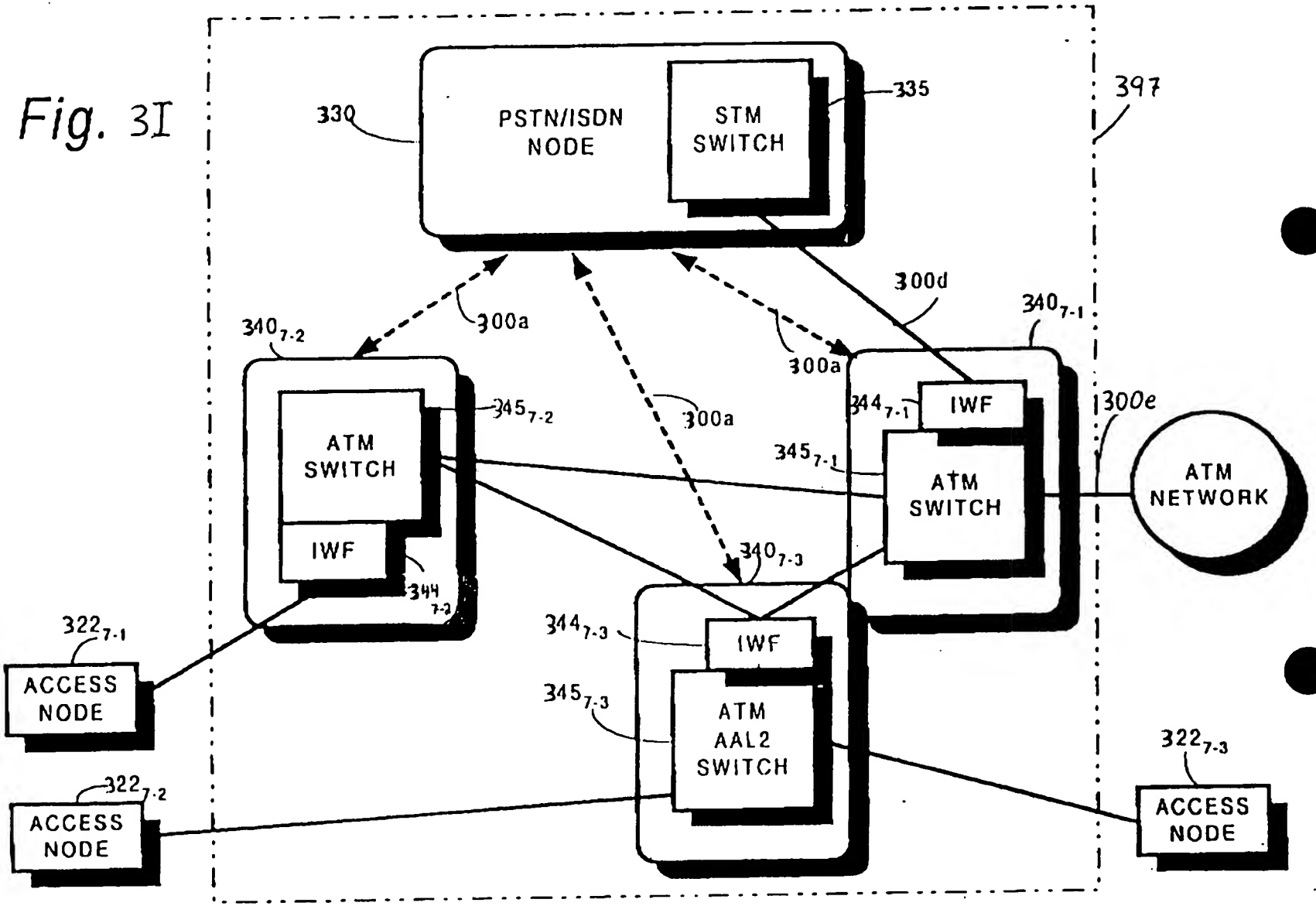

330/340N
PSTN/ISDN NODE A
360
330N
ATM NODE
340N
ATM VIRTUAL CHANNELS
SSN #7 SIGNALING
CIRCUIT EMULATION
395
396
330N+1
PSTN/ISDN NODE B
330N+2
PSTN/ISDN NODE C

Fig. 3I


397
330
PSTN/ISDN NODE
335
STM SWITCH
300a
300a
300a
300d
340_{7-1}
340_{7-2}
340_{7-3}
345_{7-2}
ATM SWITCH
IWF
344_{7-2}
344_{7-1}
IWF
345_{7-1}
ATM SWITCH
300e
ATM NETWORK
344_{7-3}
IWF
345_{7-3}
ATM AAL2 SWITCH
322_{7-1}
ACCESS NODE
322_{7-2}
ACCESS NODE
322_{7-3}
ACCESS NODE

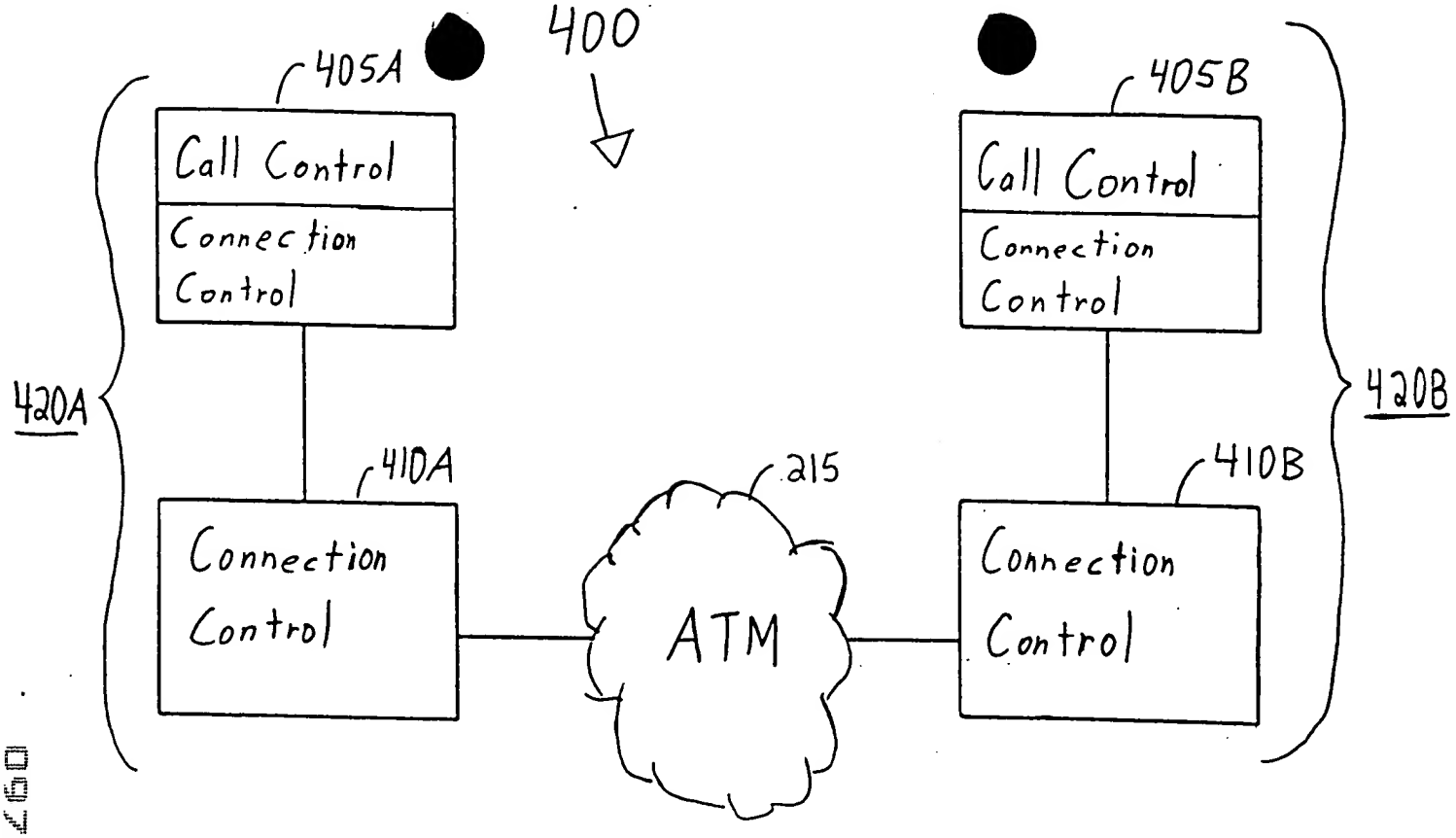

400
405A
Call Control
Connection Control
405B
Call Control
Connection Control
420A
420B
410A
Connection Control
215
ATM
410B
Connection Control

FIG. 4

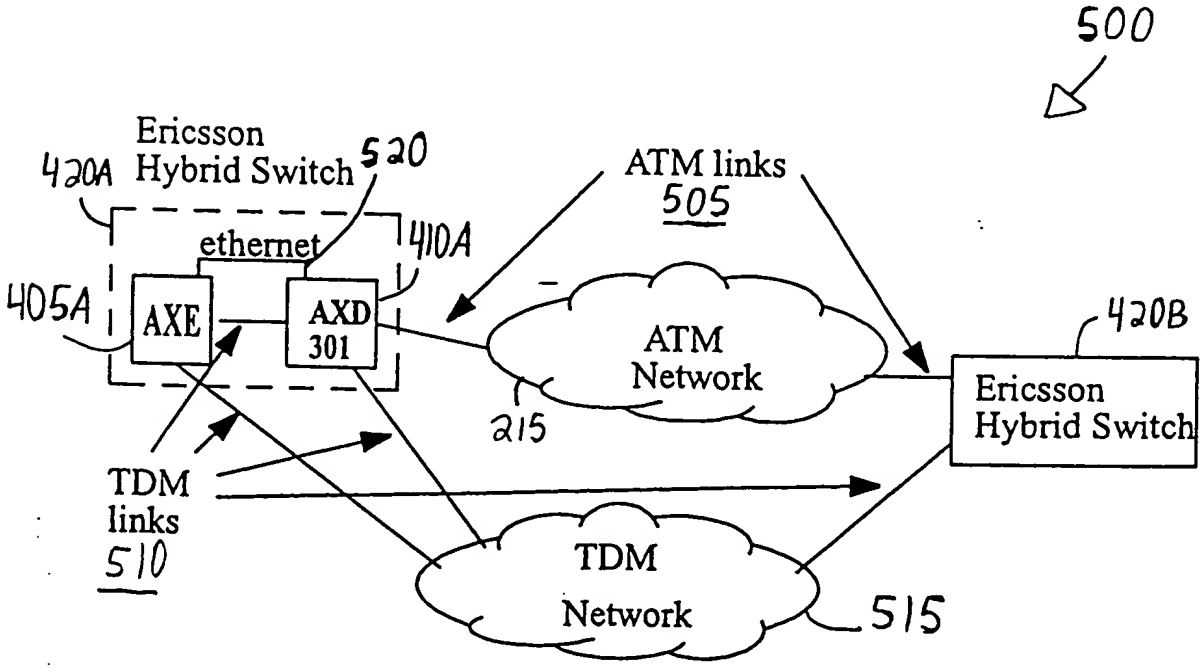

500
Ericsson Hybrid Switch
420A
520
ATM links
505
ethernet
410A
405A
AXE
AXD 301
ATM Network
420B
Ericsson Hybrid Switch
215
TDM links
510
TDM Network
515

FIG. 5

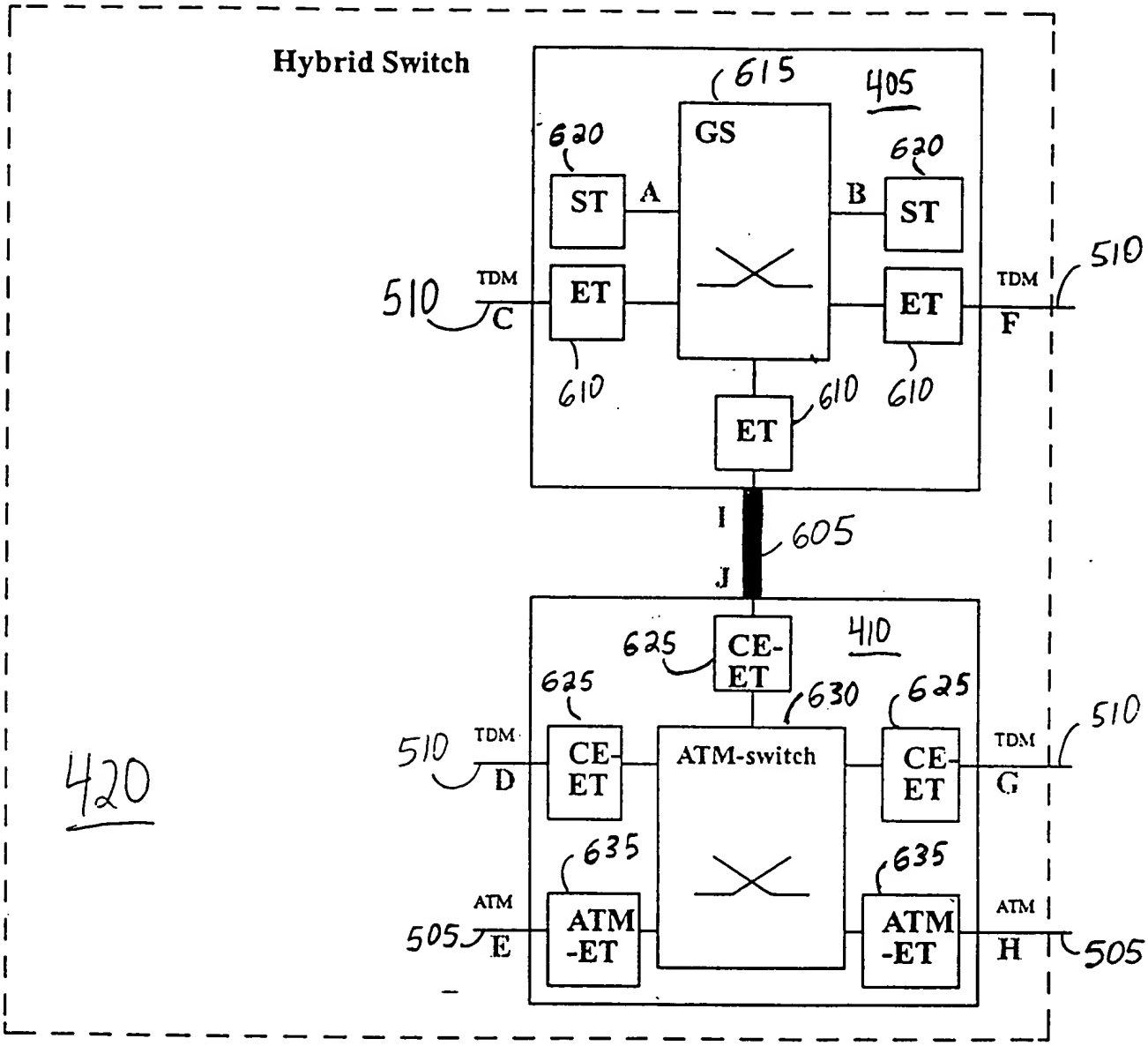

Hybrid Switch
615
405
GS
620
620
ST
A
B
ST
510
TDM
510
TDM
ET
ET
C
F
610
610
610
ET
I
605
J
410
625
CE-ET
625
630
625
510
TDM
510
TDM
CE-ET
ATM-switch
CE-ET
D
G
635
635
ATM
ATM
505
ATM-ET
ATM-ET
505
E
H
420

FIG. 6

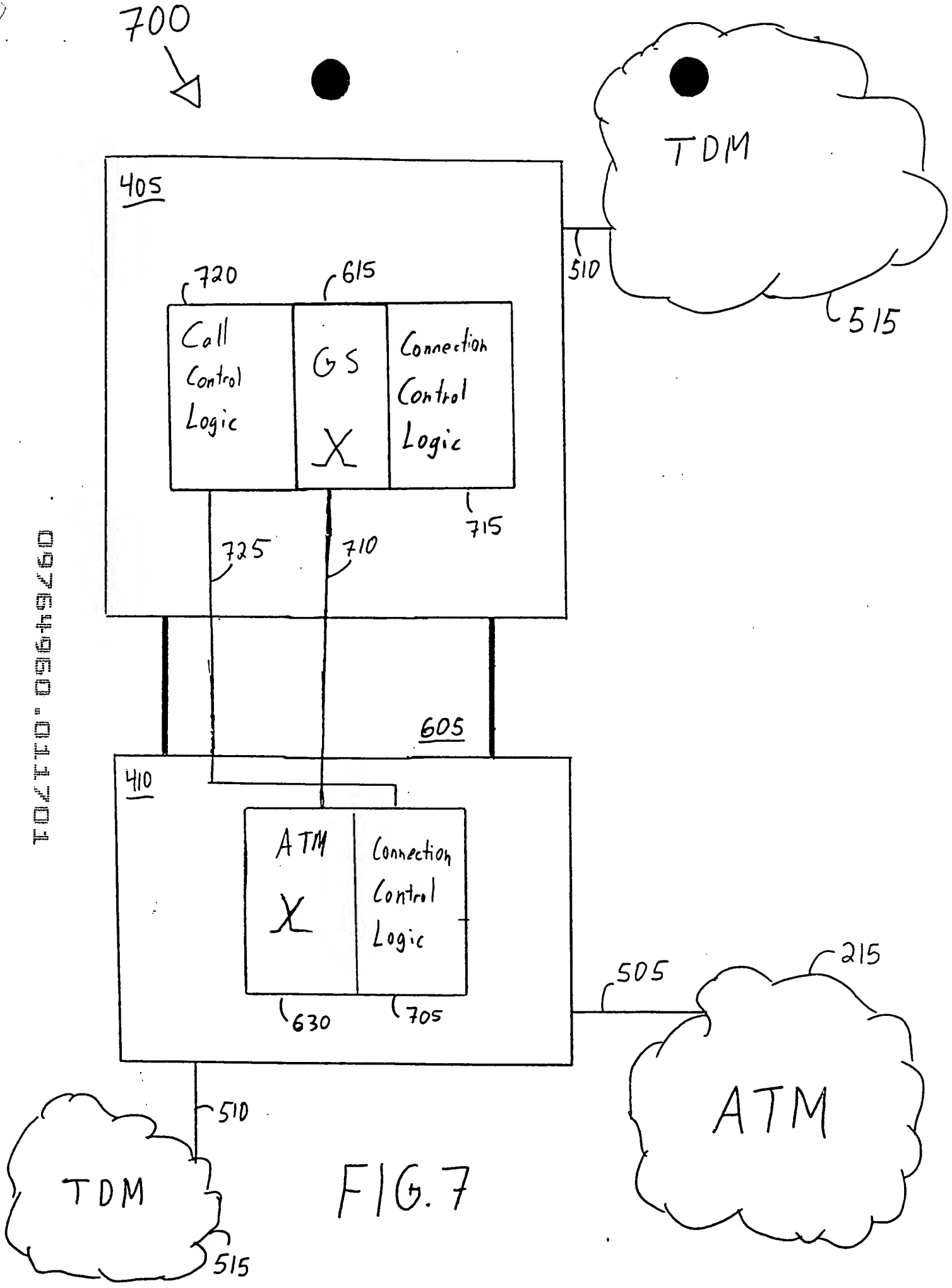

700
TDM
405
510
515
720
615
Call
Control
Logic
GS
X
Connection
Control
Logic
715
725
710
605
410
ATM
X
Connection
Control
Logic
630
705
505
215
ATM
510
TDM
515

FIG. 7

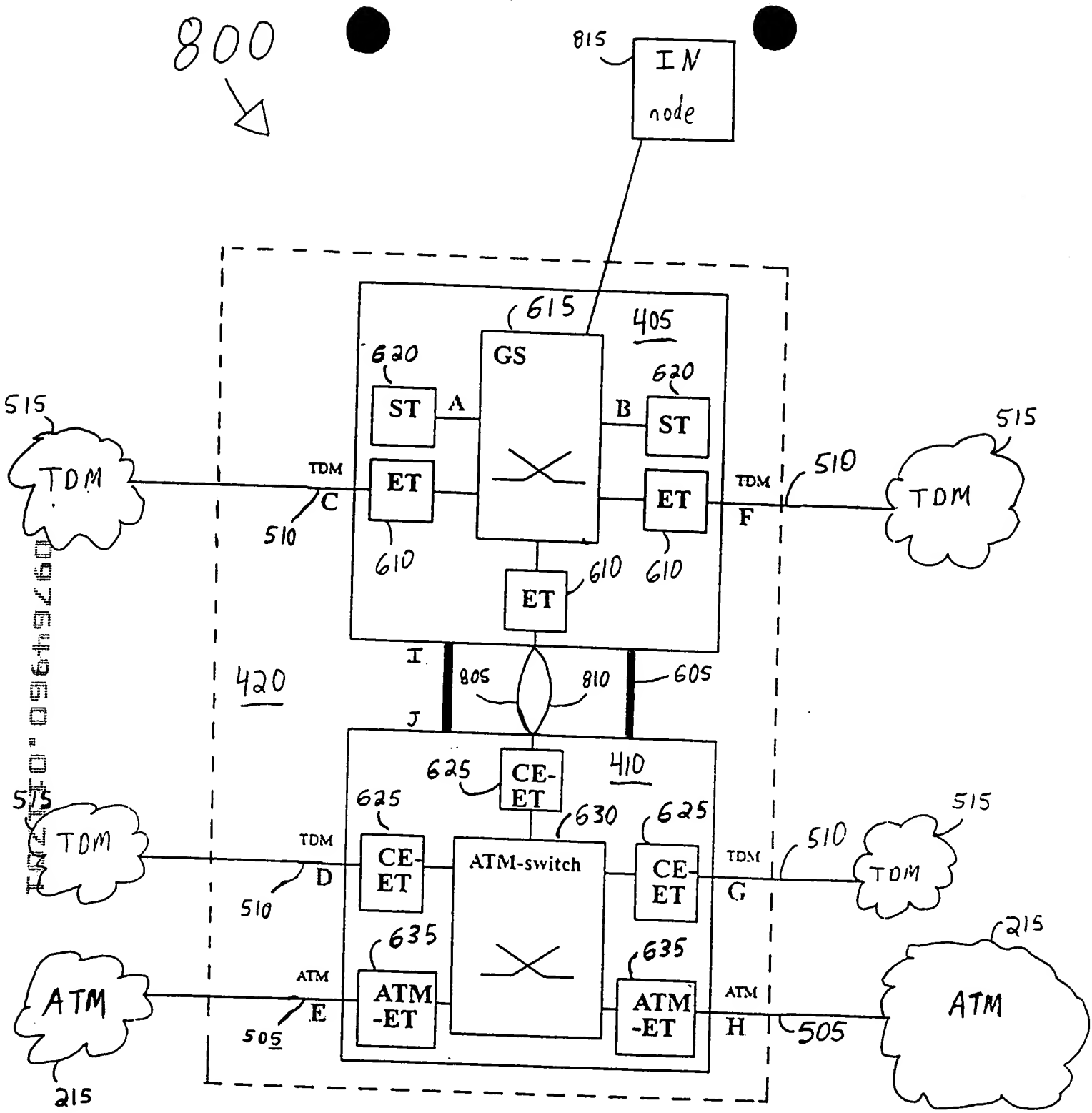

800
815
IN node
615
405
GS
620
ST
A
B
620
ST
515
TDM
TDM
ET
C
510
510
610
610
610
ET
610
ET
TDM
510
F
515
TDM
420
I
805
810
605
J
625
CE-ET
410
625
630
625
515
TDM
TDM
CE-ET
ATM-switch
CE-ET
TDM
510
510
D
G
515
TDM
635
635
215
ATM
ATM
ATM-ET
ATM-ET
ATM
ATM
E
505
H
505
215

FIG. 8

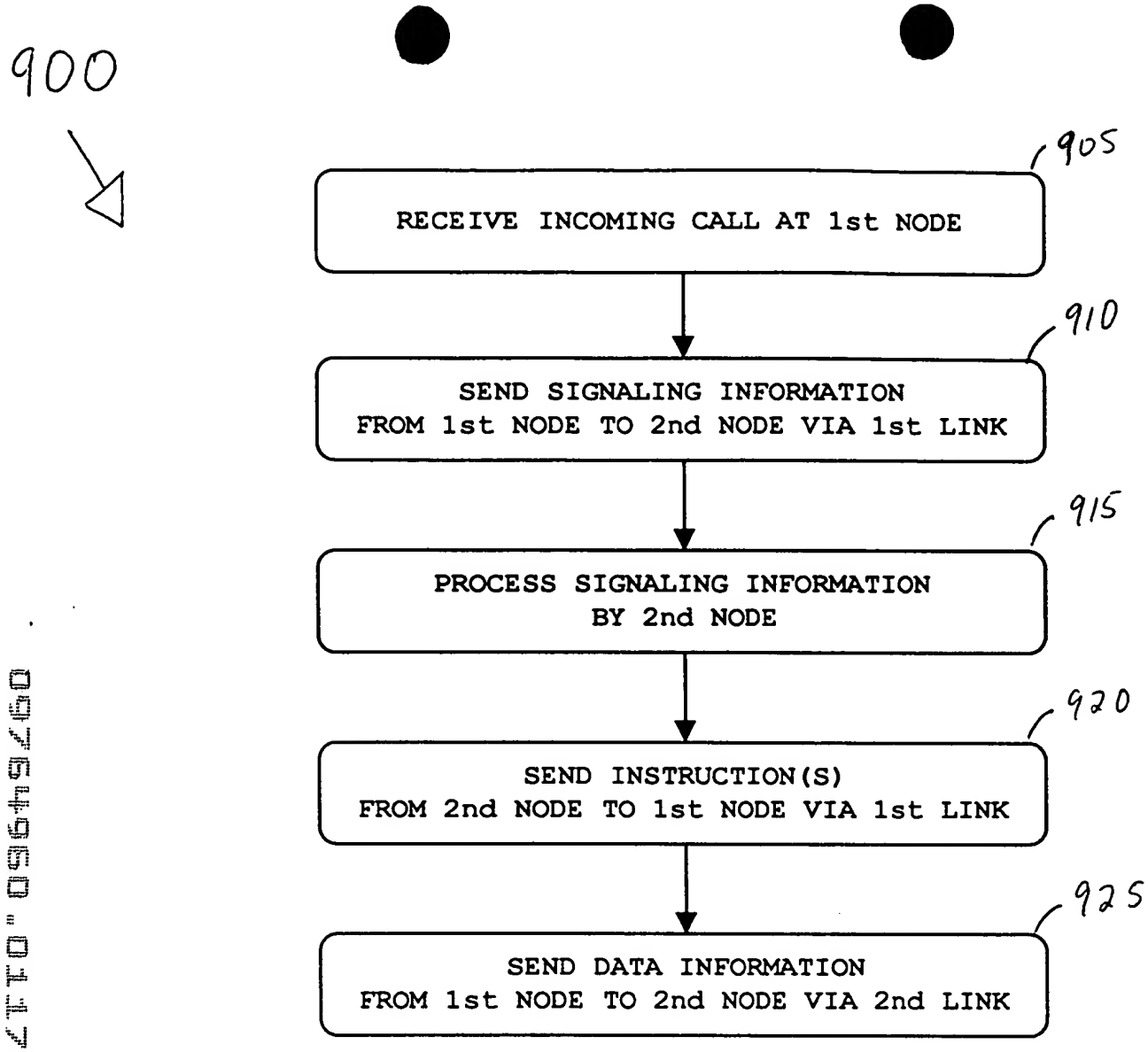

900
905
RECEIVE INCOMING CALL AT 1st NODE
910
SEND SIGNALING INFORMATION
FROM 1st NODE TO 2nd NODE VIA 1st LINK
915
PROCESS SIGNALING INFORMATION
BY 2nd NODE
920
SEND INSTRUCTION(S)
FROM 2nd NODE TO 1st NODE VIA 1st LINK
925
SEND DATA INFORMATION
FROM 1st NODE TO 2nd NODE VIA 2nd LINK

FIG. 9

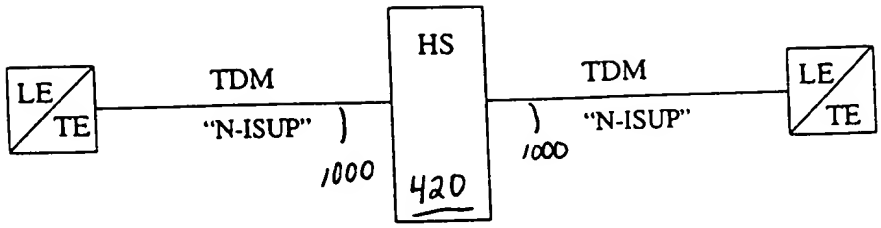


FIG. 10A

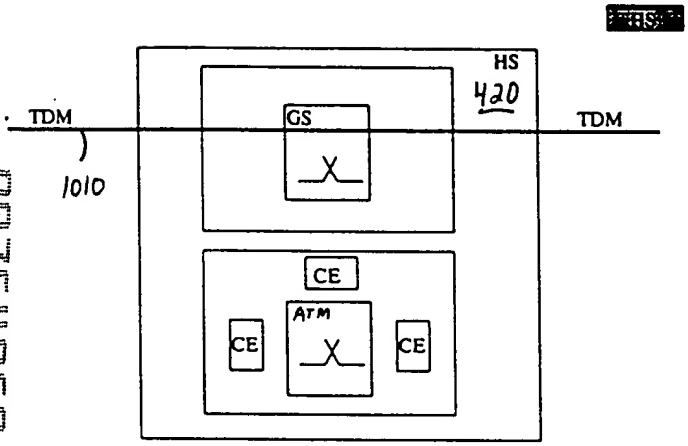


FIG. 10B

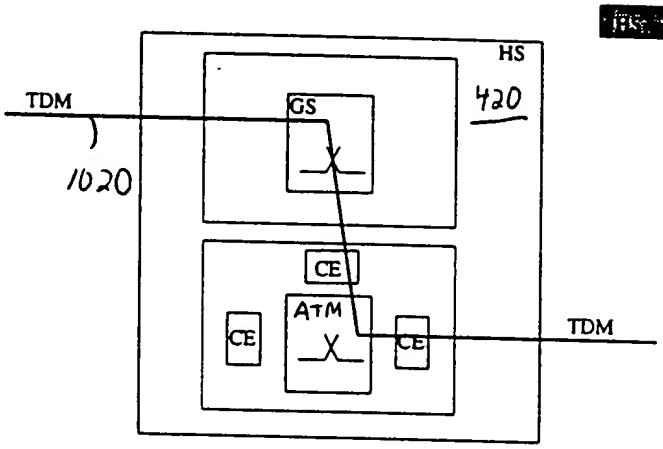


FIG. 10C

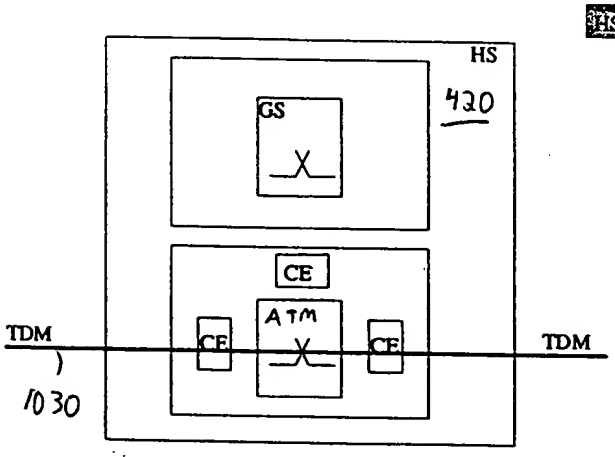


FIG. 10D

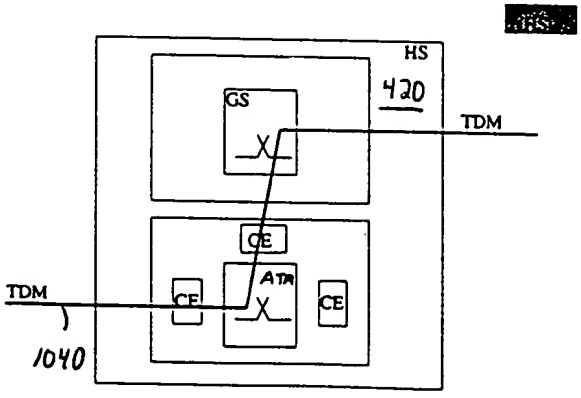


FIG. 10E

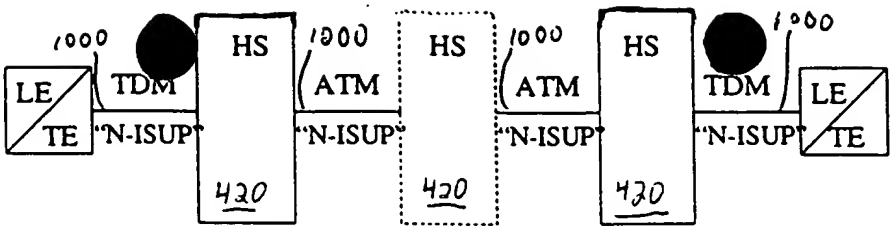


FIG. 10F

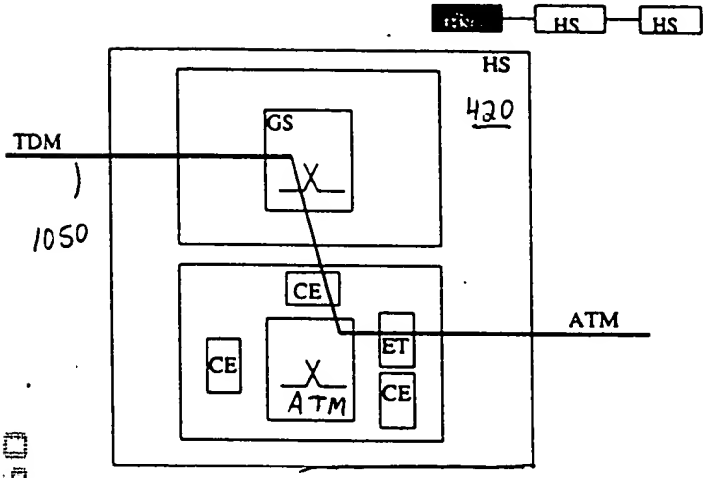


FIG. 10G

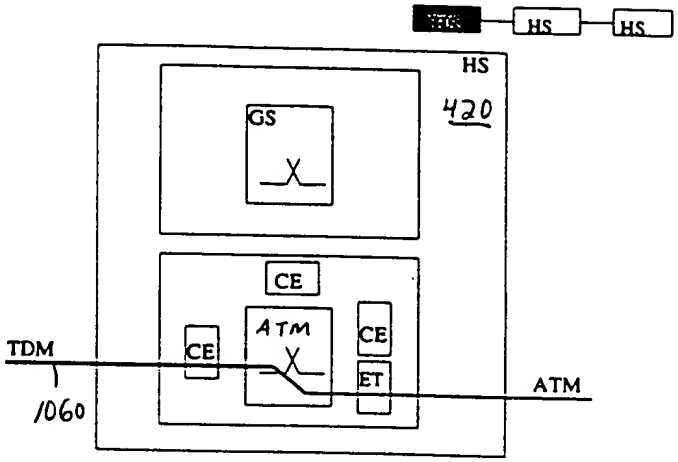


FIG. 10H

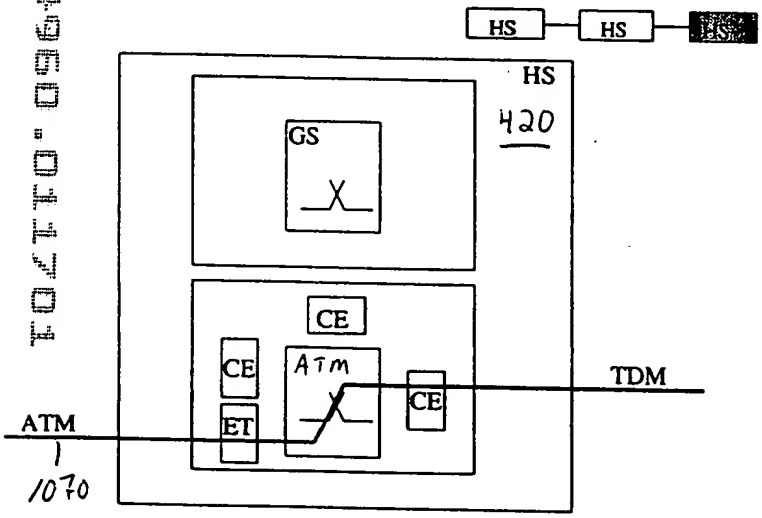


FIG. 10I

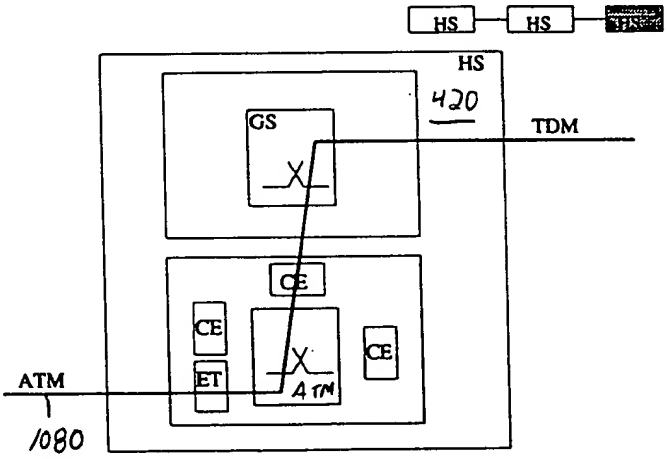


FIG. 10J

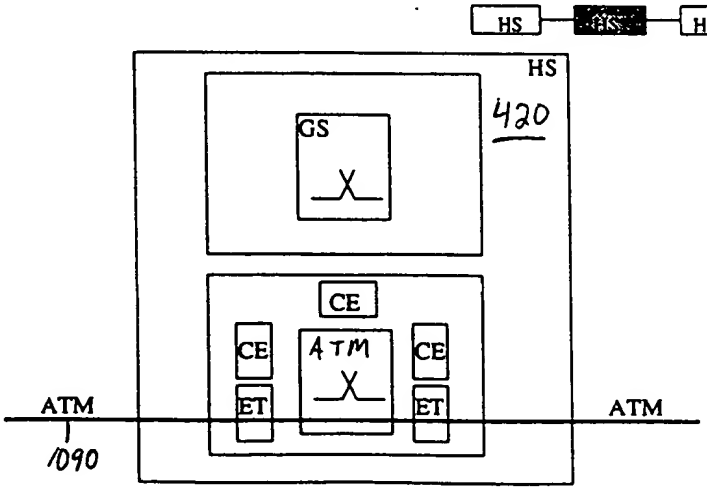


FIG. 10K

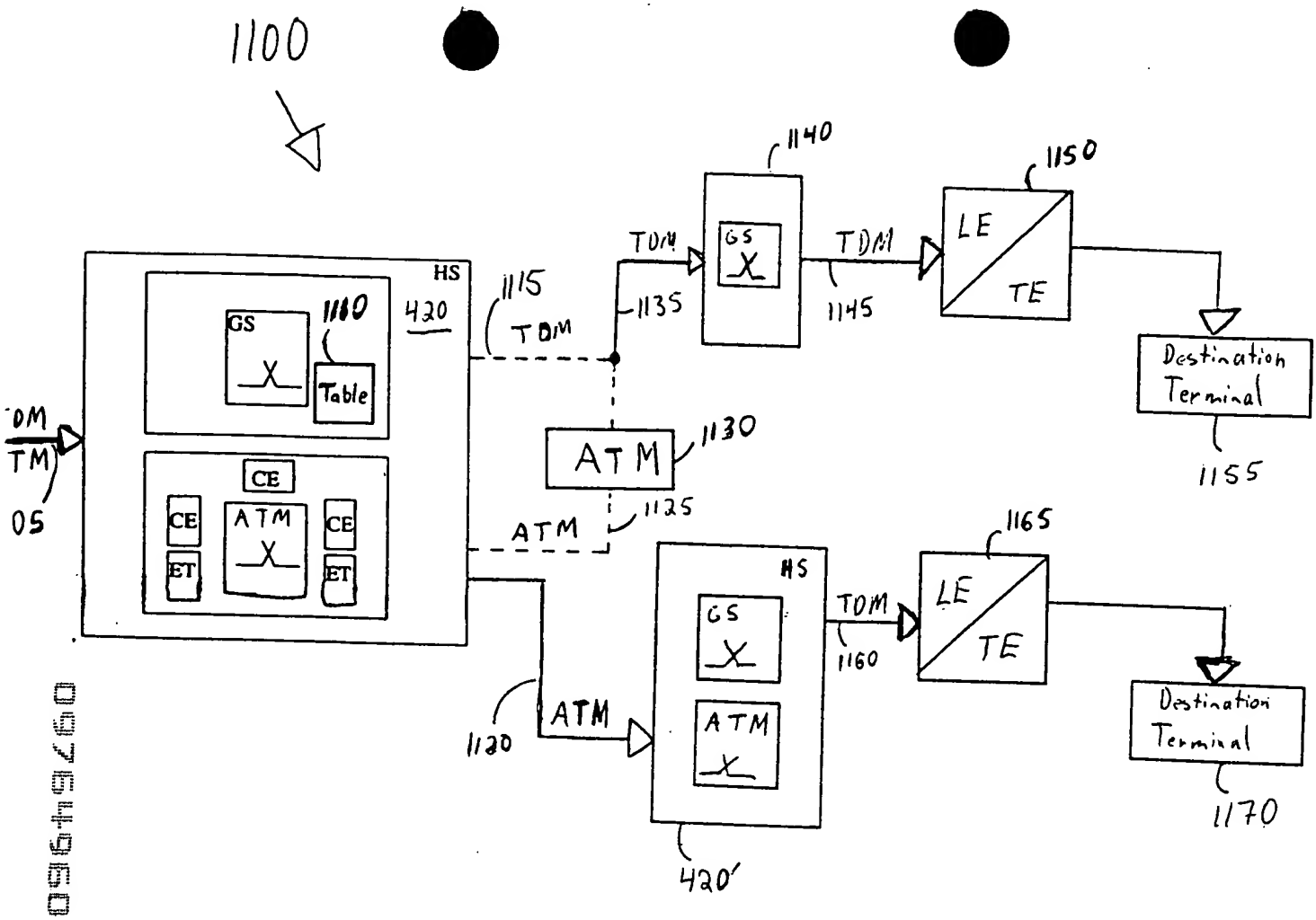


FIG. 11

EXHIBIT 1005 - 0054

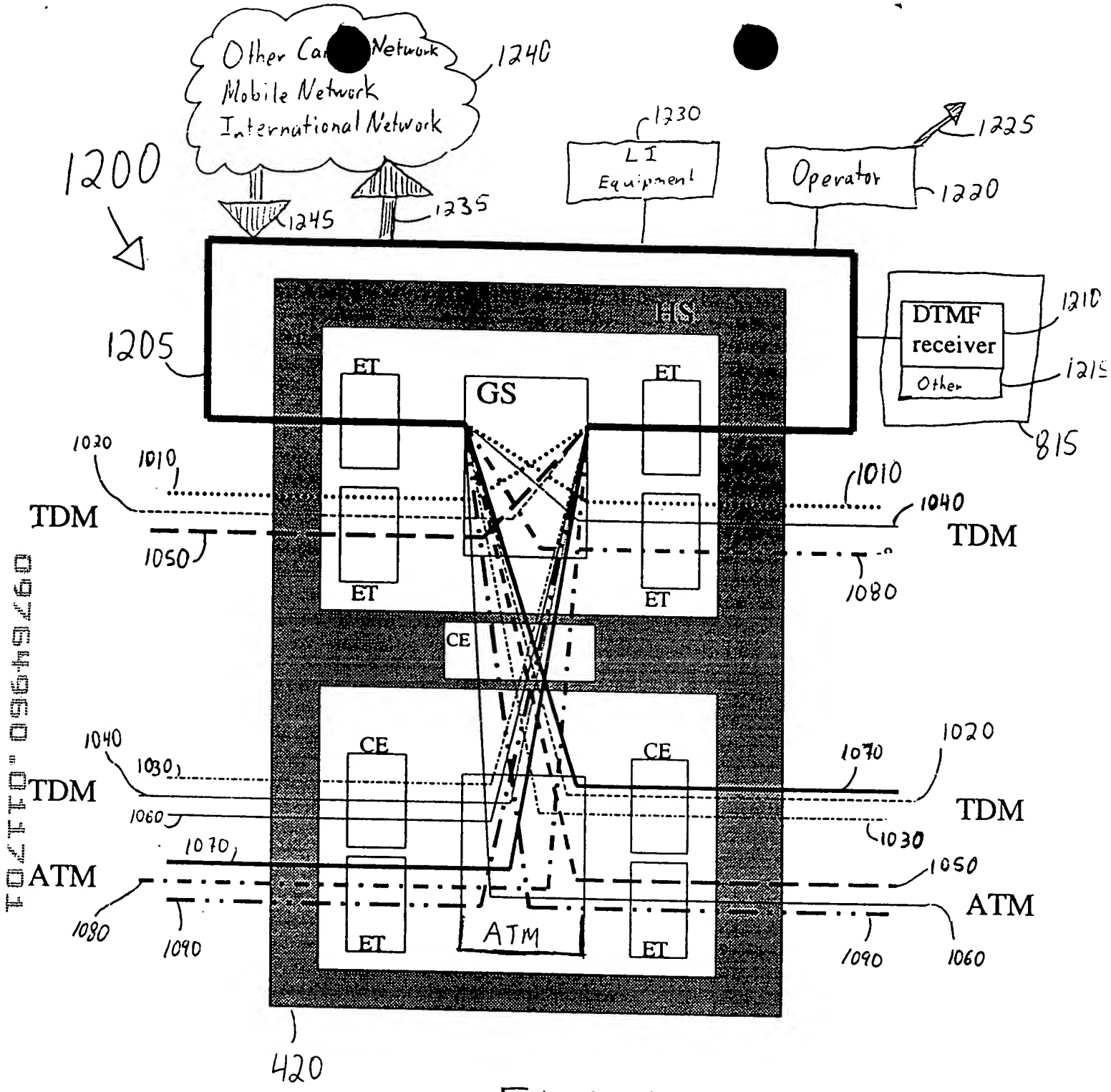

Other Ca Network
Mobile Network
International Network
1240
1200
1230
LI
Equipment
1225
Operator
1220
1245
1235
1205
HS
DTMF
receiver
1210
Other
1215
815
ET
GS
ET
ET
ET
CE
CE
CE
ET
ATM
ET
1020
1010
1010
1040
TDM
TDM
1050
1080
1040
1030
1070
1020
TDM
TDM
1060
1030
1070
1050
ATM
ATM
1080
1090
1090
1060
420

FIG. 12

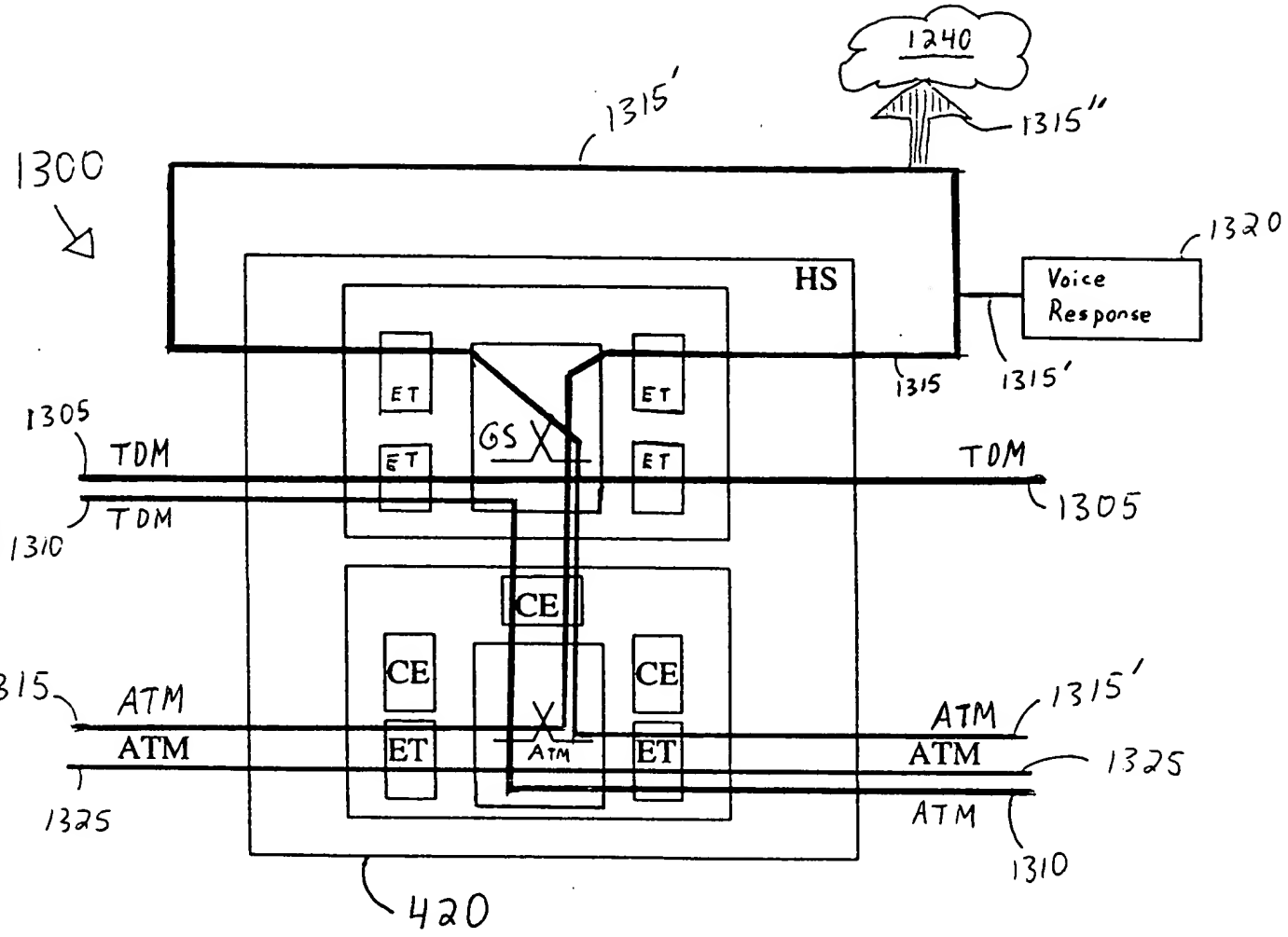

1240
1315'
1315"
1300
1320
HS
Voice
Response
ET
ET
ET
ET
GS
1315
1315'
1305
TDM
TDM
TDM
1305
1310
CE
CE
CE
1315
ATM
ATM
ATM
1315'
ET
ATM
ET
ATM
1325
ATM
1325
1310
420

FIG. 13

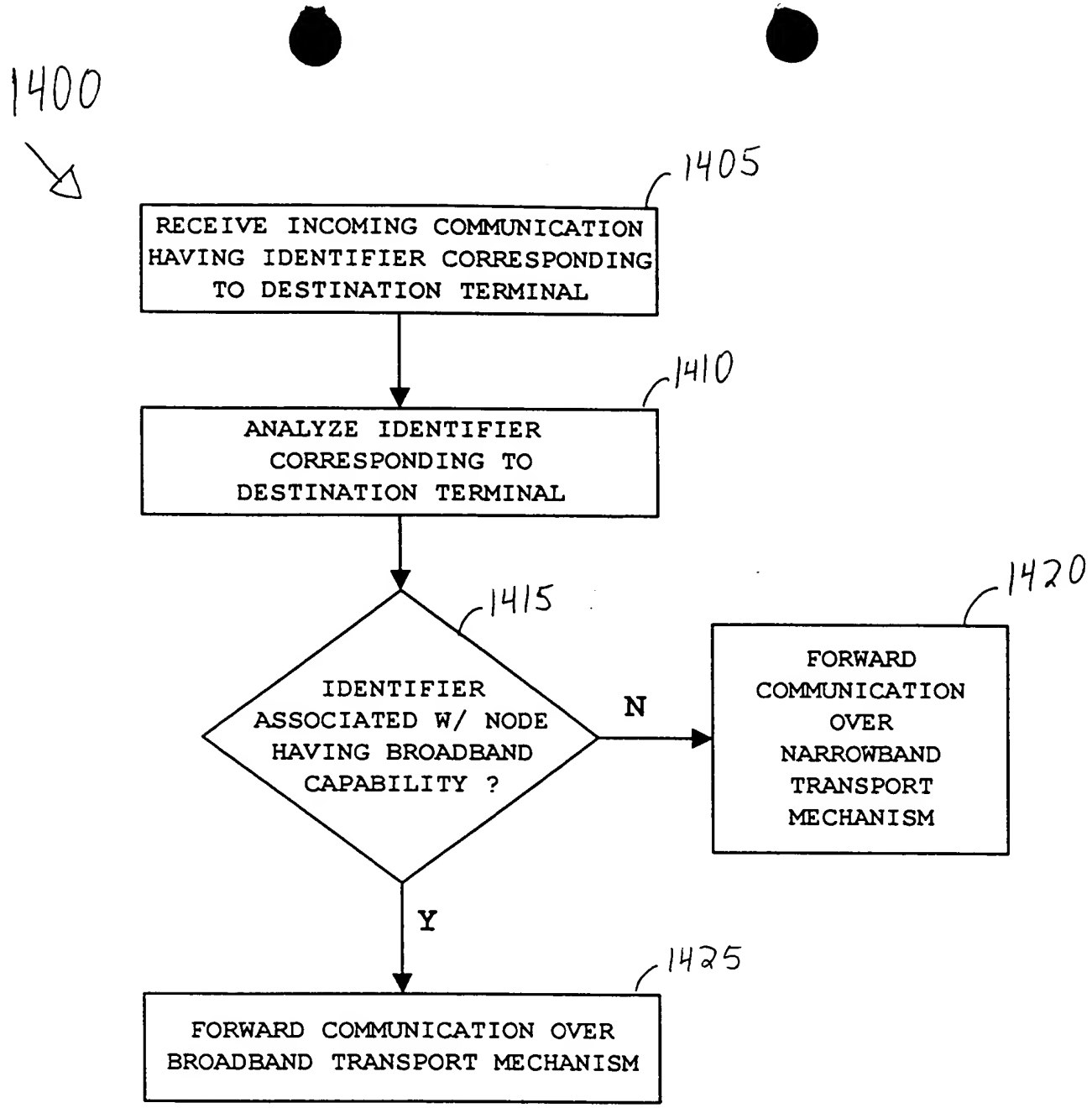

1400
1405
RECEIVE INCOMING COMMUNICATION HAVING IDENTIFIER CORRESPONDING TO DESTINATION TERMINAL
1410
ANALYZE IDENTIFIER CORRESPONDING TO DESTINATION TERMINAL
1415
IDENTIFIER ASSOCIATED W/ NODE HAVING BROADBAND CAPABILITY ?
N
1420
FORWARD COMMUNICATION OVER NARROWBAND TRANSPORT MECHANISM
Y
1425
FORWARD COMMUNICATION OVER BROADBAND TRANSPORT MECHANISM

FIG. 14